

short- and longer-term effectiveness of EECF. Although the ENBS depends on the cost-effectiveness threshold, the ENBS is positive for most sample sizes indicating that further experimental research will be efficient. A clinical trial design is proposed with equal allocation of patients between arms. Given a threshold of  $\leq 20,000$  per QALY gained, the highest expected returns to additional research will come from a trial with a 4-year follow-up and an optimal sample size of 900. **CONCLUSIONS:** Expert elicitation and value of sample information can be combined into a single coherent framework to establish the value of further research, the optimal design of such research, and the most appropriate basis for informing cost-effectiveness.

## PCV49

**ENOXAPARIN VERSUS UNFRACTIONATED HEPARIN FOR THE NON-INVASIVE MANAGEMENT OF PATIENTS WITH NON-ST-SEGMENT ELEVATION ACUTE CORONARY SYNDROMES (NSTE-ACS): THE PHARMACOECONOMIC EVALUATION IN RUSSIA**

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**OBJECTIVES:** To compare one-day cost efficacy and safety of enoxaparin 1 mg/kg subcutaneous injection twice daily with unfractionated heparin intravenous infusion for the conservative management in patients with NSTE-ACS. **METHODS:** Eighty patients were enrolled in the study and received enoxaparin 10 mg/kg subcutaneous injection twice daily (n = 40) or unfractionated heparin intravenous infusion (n = 40) for the conservative management in patients with NSTE-ACS. Treatment efficacy was evaluated on the basis of the combination of clinical, ECG and laboratory indexes. The therapy was considered to be non-effective in case of death, nonfatal myocardial infarction (MI), early angiography with subsequent revascularization and major bleeding. **RESULTS:** Total expenses per 1 patient (only direct costs) and cost/efficacy ratio were calculated for each anticoagulant group. The following cases were recorded in unfractionated heparin group: one death, two major bleedings, and five MIs. Treatment efficacy proved to be 80% while total expenses per 1 patient stood at 46,489 rubles and cost/efficacy ratio accounted for 58,111 rubles per every effective treatment (current exchange rate 1\$ = 29 rubles). Enoxaparin showed 3 MIs and 1 performed acute angioplasty. Treatment efficacy was 90% while total expenses per 1 patient was 46,993 rubles and cost/efficacy ratio was 52 214 rubles per 1 effective treatment. After compare the costs of treatment and its efficacy in both groups enoxaparin proved to be the most cost-effective anticoagulant due to the smallest total expenses and cost/efficacy ratio. **CONCLUSIONS:** Medical treatment with enoxaparin 1 mg/kg twice daily in patients with NSTE-ACS proved to be more beneficial in terms of cost and efficacy than permanent intravenous infusion of unfractionated heparin.

## PCV50

**COST CONSEQUENCES ANALYSIS OF ANTITHROMBOTIC THERAPIES FOR VENOUS THROMBOEMBOLIC DISEASE (VTE) IN MEDICAL PATIENTS IN MEXICO**

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**OBJECTIVES:** Updated consensus guidelines published by the American College of Chest Physicians, and the International Union of Angiology recommend thromboprophylaxis with either low-molecular-weight heparin or unfractionated heparin(UFH) in medical patients at risk of VTE. The purpose of this study was to estimate the cost-effectiveness of different thromboprophylactic agents to prevent or treat VTE associated with patients undergoing general surgery from the institutional perspective. **METHODS:** A six-state Markov model was performed to estimate health and economic consequences during a time horizon of one year (1-week cycles). Effectiveness measures were decreased number of deep vein thrombosis(DVT) and pulmonary thromboembolism(PE) events; reduction of recurrent hospitalizations and avoidance of death. Transition probabilities were obtained from a meta-analysis employing international published literature. Comparators used in the assessment were warfarin(5 mg/day); dalteparin(2,500,5,000,7,500 IU/day); acenocoumarol(4 mg/day); enoxaparin (20,40,60 mg/day); nadroparin(57,00 IU/day); UFH plus warfarin(10,000,30,000,42,000 IU/day+5 mg/day) and fondaparinux(2.5–7.5 mg/day). Resource use and costs were obtained from 8000 randomized hospital records from the Social Security Mexican Institute (IMSS) and official institutional databases. Costs include outpatient and inpatient services, drug, procedures, etc. The model was validated according to international guidelines. Probabilistic sensitivity analyses were performed employing bootstrapping techniques. Acceptability curves were constructed. **RESULTS:** Dalteparin showed the lowest incidence of PE, DVT, thrombosis associated deaths and hospital recurrence compared to the rest of thromboprophylactic therapies(p < 0.05). Only warfarin and acenocoumarol obtained costs below dalteparin strategy. Regarding the reduction of DVT events, dalteparin 2500, 5000 and 7000 IU/day show an ICER [CI95%] of US\$110.0[US\$107.7–US\$112.3]; US\$101.3[US\$99.1–US\$103.5] and US\$97.3[US\$93.8–US\$97.9] against warfarin (gold-standard), respectively. Enoxaparin 20,40,60 mg/day; nadroparin and UFH+warfarin were dominated by dalteparin. Second-order Monte Carlo analysis showed that dalteparin could be a cost-saving treatment against enoxaparin with a probability over 50%. Component analyses further validated these results. **CONCLUSIONS:** Dalteparin is a cost-effective thromboprophylactic therapy to reduce PE and DVT events in Mexican medical patients at risk of VTE due its higher efficacy and lower cost.

## PCV51

**A COST-EFFECTIVENESS ASSESSMENT OF DALTEPARIN AS A PROPHYLACTIC AND THERAPEUTIC AGENT FOR THE MANAGEMENT OF THROMBOEMBOLIC VENOUS DISEASE (VTE) IN MEXICAN ADULT PATIENTS AFTER TOTAL HIP REPLACEMENT**

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**OBJECTIVES:** A high risk to develop pulmonary thromboembolism (PE) and deep vein thrombosis (DVT) has been associated with certain surgeries and prolonged hospitalization. The aim of this study was to assess the cost-effectiveness of different anticoagulant therapies to prevent or treat VTE associated with hip surgery from the health care payer's perspective. **METHODS:** A six-state stochastic Markov model was performed to estimate costs and effectiveness during a time horizon of one-year (1-week cycles). Effectiveness measures were reduction in PE and DVT events; decreased hospitalizations and avoidance of death. Transition probabilities were obtained from a meta-analysis involving national and international published literature. Comparators used in the assessment were warfarin(5 mg/day); dalteparin (2500,5000,7500 IU/day); acenocoumarol(4 mg/day); enoxaparin(20,40,60 mg/day); nadroparin(5700 IU/day); unfractionated heparin plus warfarin(10000,30000,42000 IU/day+5 mg/day) and fondaparinux(2.5–7.5 mg/day). Resource use and costs were obtained from hospital records (n = 8000) from the Social Security Mexican Institute (IMSS) and official institutional databases. Costs include outpatient and inpatient services, drug, procedures, etc. The model was validated according to international guidelines. Sensitivity analyses were performed employing bootstrapping techniques and acceptability curves were constructed. **RESULTS:** Incidence of PE and DVT were significantly lower in patients receiving dalteparin treatment (p < 0.05). Regarding the reduction of DVT events, dalteparin 2500, 5000 and 7000 IU/day showed an ICER[CI95%] of US\$214.02[US\$209.47–US\$218.58]; US\$198.63[US\$194.43–US\$202.89] and US\$189.06[US\$185.04–US\$193.09] against warfarin, respectively. Dalteparin showed the lowest number of deaths and hospital re-admissions when compared to other anticoagulant treatments(p < 0.05) reducing significant costs in the short term within an institutional Mexican setting. Second-order Monte Carlo analyses showed evidence that dalteparin would be more cost-effective than enoxaparin in a range of 60%–70%(p < 0.05). **CONCLUSIONS:** In Mexico, dalteparin demonstrated to be a cost-effective anticoagulant therapy to reduce the incidence of PE and DVT, and avoid death and hospital re-admissions in the management of adult patients after total hip replacement. These results should be taken into account by Mexican health professionals to generate cost-containment strategies.

## PCV52

**ECONOMIC EVALUATION OF DALTEPARIN FOR THE MANAGEMENT OF THROMBOEMBOLIC VENOUS DISEASE (VTE) AFTER TOTAL KNEE ARTHROPLASTY IN MEXICO**

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**OBJECTIVES:** Patients treated with total knee arthroplasty are at high risk for the development of venous thromboembolism postoperatively resulting in poor health outcomes and generating additional costs to the health care system. The purpose of this study was to estimate the cost-effectiveness of different thromboprophylactic agents to prevent VTE associated with knee surgery from an institutional perspective. **METHODS:** A six-state stochastic Markov model was constructed to simulate health and economic outcomes during a time horizon of one year (1-week cycles). Effectiveness measures were prevention of events of deep vein thrombosis (DVT) and pulmonary thromboembolism(PE); and reduction of recurrent hospitalizations and deaths. Markov transition probabilities were obtained from a meta-analysis employing international published literature. Comparators employed were warfarin(5 mg/day); dalteparin(2,500,5,000,7,500 IU/day); enoxaparin (20,40,60 mg/day); nadroparin (57,00 IU/day); unfractionated heparin(UFH) plus warfarin(10,000,30,000,42,000 IU/day+5 mg/day); fondaparinux(2.5–7.5 mg/day) and no prophylaxis intervention. Resource use and costs were collected from clinical records (n = 7000) from Social Security Mexican Institute(IMSS) hospitals. Costs include outpatient and inpatient services, drug, procedures, etc. The model was calibrated according to international guidelines. Probabilistic sensitivity analyses were performed employing bootstrapping techniques and acceptability curves were constructed. **RESULTS:** Incidence of PE and related deaths were significantly lower for patients treated with dalteparin (p < 0.05). Regarding the prevention of PE events, dalteparin 2500, 5000 and 7000 IU/day showed an ICER[CI95%] of US\$1932.88[US\$1,888.67–US\$1977.11]; US\$1800.87[US\$1759.67–US\$1842.07] and US\$1718.52[US\$1679.21–US\$1757.84]; against warfarin(gold-standard), respectively. In addition, UFH yielded an ICER of US\$23.35[US\$22.82–US\$23.89] and fondaparinux of US\$1410.74[US\$1378.47–US\$1,443.02]. However, enoxaparin, nadroparin, and no prophylaxis alternatives were dominated. Second-order Monte Carlo sensitivity analyses demonstrated a trend that dalteparin would be more cost-effective than enoxaparin in a range of 50%–60%(p < 0.05) in PE events avoided. **CONCLUSIONS:** At IMSS, dalteparin compared to warfarin would be a cost-effective thromboprophylactic therapy to reduce risk of PE and DVT events associated with total knee arthroplasty and showed 75% less related deaths than enoxaparin. These results could be useful for future cost-containment policies.